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**REMOVAL SITE EVALUATION
ADMINISTRATION AREA FENCE LINE
RELOCATION JUNE 1991**

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REMOVAL SITE EVALUATION

ADMINISTRATION AREA FENCE LINE RELOCATION

Feed Materials Production Center

U. S. Department of Energy

JUNE 1991

INTRODUCTION

In an effort to improve the appearance of the area in front of the Administration Building and to remove unnecessary security fencing from a public access area, an activity was initiated to remove 320 feet of fence and relocate the fence line to the western end of the building. The project will include removing 320 feet of fence, consisting of mesh, posts, barbed wire, and concrete bases from the south side of the Administration Building and re-establishing the fence line from the west to connect with the western end of the building. This will greatly improve the appearance of the main entrance for visitors and remove slightly contaminated fencing that was probably painted years ago with lead-based paint.

The fence line south of the Administration Building is unnecessary because there are no outside access points behind the existing fence on the south side of the building. The two doorways that will be exposed by the relocation can only be opened from the inside of the building. The demolition of the existing fence and the installation of the new fence will not involve any excavation of soil, so no airborne particulates are anticipated. A sketch of the proposed activity is attached.

SOURCE AND NATURE OF THE THREAT OF A RELEASE

The existing chain link mesh and fenceposts are contaminated by radioactive material and must be retained on-site. The radioactive contamination is fixed in the paint that was applied to the fence. Also, the metal may have been painted with lead based paint which may introduce RCRA concerns. A RCRA characterization will be performed to determine the storage methods and disposal requirements.

The concrete has low concentrations of radioactive contamination and will be retained on-site. The soil around the concrete does not require excavation to perform the project. Only the soil stuck to the concrete will be removed and boxed with the concrete. The fenceposts and concrete will be pulled from the ground and wrapped in plastic for storage on-site in a Sealand container. All painted items will be wrapped in plastic immediately and then transported to the storage container. The other parts of the fence will also be boxed and stored on-site until a determination has been made.

The new fence will not require excavation of soil. The fenceposts will be driven into the ground, which will not disturb the soil. All new fence materials will be used.

EVALUATION OF THE MAGNITUDE OF THE POTENTIAL THREAT

Smear samples and paint samples confirm that the contamination is fixed in the paint. Therefore, dismantling the fence, pulling the fenceposts, and immediately wrapping the rubble in plastic will contain contamination and potential lead based paint. The plastic wrap will contain any paint that may flake from the fencing until it is containerized.

The containerized fencing and concrete will be staged on-site and sampled for RCRA concerns. If found to be non-RCRA, it will be scheduled for shipment off-site. If the containers are determined to have RCRA constituents due to the lead-based paint dispersal, The containers will be properly labeled and placed into storage. The holes from the removed fenceposts will be filled with clean (uncontaminated) soil.

The installation of the new fence will not release contaminants because the installation procedure will not disturb the existing soil enough to cause airborne particulates. By driving the fenceposts into position, the soil will only be further compacted in place. The following are two tables of results of the Radiological Survey Report and other sample measurements taken in the area.

RADIOLOGICAL SURVEY REPORT

	<u>AVE. DPM (PROBE)</u> <u>BETA-GAMMA</u>	<u>HIGH DPM (PROBE)</u> <u>BETA-GAMMA</u>
Fenceposts	2,000	3,000
Chainlike	2,000	2,500
Concrete	1,500	1,500
Ground Around Posts	< 1,000	< 1,000
Thirteen Smear Samples	< MDA*	< MDA*
Paint Chip	22 DPM/100 cm ²	41 DPM/100 cm ²
Paint Chip	30 DPM/100 cm ²	73 DPM/100 cm ²
Paint Chip	39 DPM/100 cm ²	55 DPM/100 cm ²

* MDA - Minimum Detectable Activity (19 Alpha, 16 Beta-Gamma)

SAMPLE RESULTS

<u>Sample #</u>	<u>Alpha</u> <u>(pCi/g)</u>	<u>Beta</u> <u>(pCi/g)</u>	<u>Surface</u> <u>(ppm)</u>		<u>1 Foot</u> <u>Depth (ppm)</u>		<u>0-6" Depth</u> <u>(pCi/g)</u>	
			<u>Th</u>	<u>U</u>	<u>Th</u>	<u>U</u>	<u>Th</u>	<u>U</u>
11 ¹	< 81	< 95	< 18	19	< 18	22		
12 ¹	< 81	< 95	< 18	61	< 18	17		
13 ¹	< 81	< 95	< 18	64	< 18	29		
14 ¹	< 81	< 95	< 18	56	< 18	18		
15 ¹	< 52	< 75	< 18	120	< 18	11		
16 ¹	< 72	< 75	< 18	72	< 18	29		
06105 ²							4	38
06123 ²							<3	<12

¹ Samples Taken for Telecommunications Project.

² Samples Taken for RI/FS Facilities Testing Program.

The surface contamination measurements from this area are within the limits for unrestricted release of property from a controlled area, which are contained in DOE Order 5400.5. The contamination detected in this area is fixed, and the applicable limit is 5000 dpm/100 cm². Based on prior experience and surveys in this area, the reported soil contamination also will not exceed the applicable contamination limit. Consequently the existence of this contamination in a non-controlled area does not constitute a hazard to individuals in the area.

ASSESSMENT OF THE NEED FOR A REMOVAL ACTION

Consistent with Section 40 CFR 300.410 of the NCP, the Department of Energy shall determine the appropriateness of a removal action. Eight factors to be considered in this determination are listed in 40 CFR 300.415(b)(2). The following apply specifically to the Administration Area Fence Line Relocation Activity.

40 CFR 300.415(b)(2)(i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

40 CFR 300.415(b)(2)(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.

APPROPRIATENESS OF A RESPONSE

If it is determined that a response action is appropriate due to the potential threat from the Administration Area Fence Line Relocation Activity, a removal action may be required to address the existing situation.

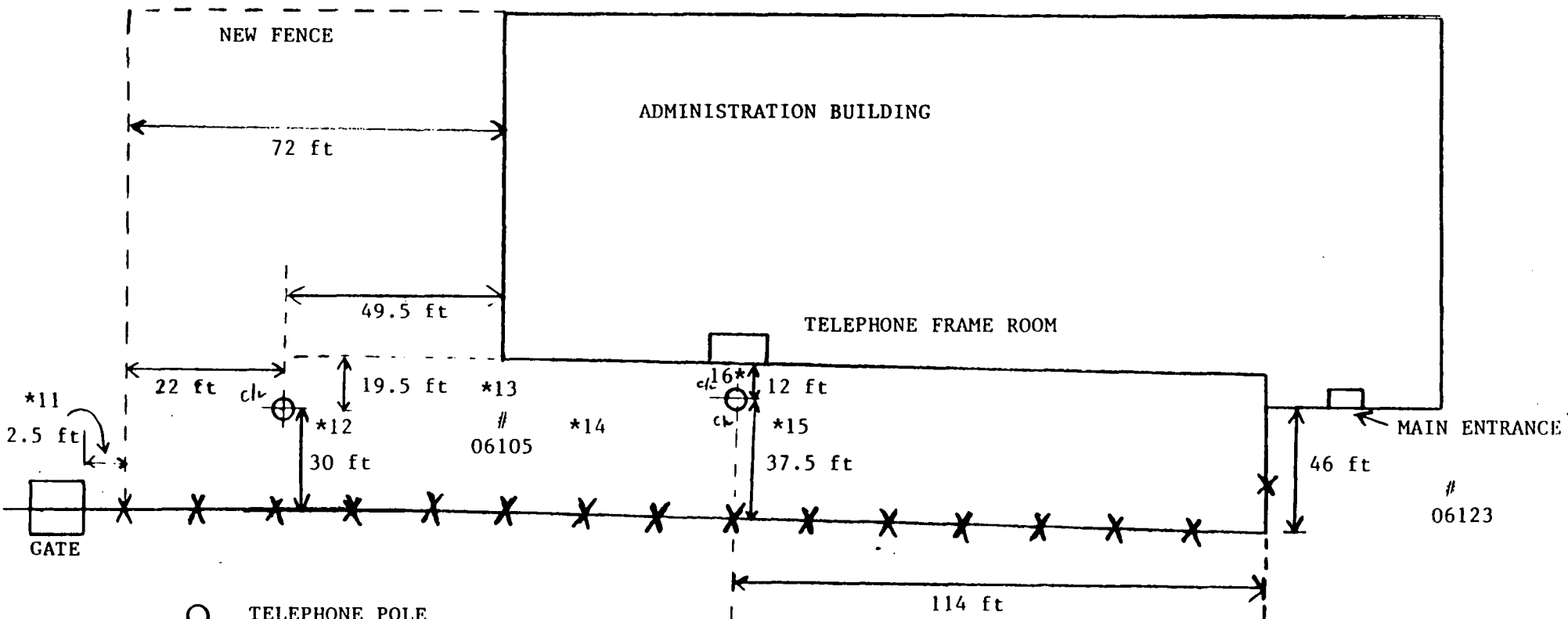
If a planning period of less than six months exists prior to initiation of a response action, DOE will issue an Action Memorandum. The Action Memorandum will describe the selected response and provide supporting documentation for the decision.

If it is determined that there is a planning period greater than six months before a response is initiated, DOE will issue an Engineering Evaluation/Cost Analysis (EE/CA) Approval Memorandum. This memorandum is to be used to document the threat of public health and the environment and to evaluate viable alternative response actions. It will also serve as a decision document to be included in the Administration Record.

Based on the evaluation of all the above factors, it has been determined that existing controls for the planned action are adequate and a removal action is not required.

NOTES:

1. WITH THE EXCEPTION OF THE DISTANCE BETWEEN POINTS 15 AND 16, SOIL SAMPLES FOR THE TELECOMMUNICATIONS PROJECT WERE TAKEN AT 50 FOOT INTERVALS.
2. THE DISTANCE BETWEEN THE TWO TELEPHONE POLES IS 150 FEET.



EXISTING FENCE TO BE REMOVED

NEW FENCE TO BE INSTALLED